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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,792	06/23/2003	Daniel C. Troyer	4264-030858	8337

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EXAMINER

PETERSON, KENNETH E

ART UNIT PAPER NUMBER

3724

DATE MAILED: 03/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/601,792	TROYER, DANIEL C.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kenneth E Peterson	3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 February 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-7 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Helbergh '263, who shows a valley (all space between cutting tips) having a cut-out (only space in upper half of circle in figure 3). There is a ski-jump profile (e.g. 11'a) and a rake angle of 0 degrees. It is noted that the term "ski jump profile" is not interpreted to be particularly limiting. In regards to claim 7, it is noted that the cutout can be bisected at any angle, and therefor any cutout would read on this limitation.

3. Claims 1,2, 4-8 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsujimoto '340, who shows in figure 2b a valley (all space between cutting tips) having a cut-out (e.g. at R4) that is less than half the tooth height. There is a ski-jump profile (e.g. at 7) and a rake angle of 0 degrees. In regards to claim 7, it is noted that the cutout can be bisected at any angle, and therefor any cutout would read on this limitation.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1,2 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al.'822, who shows in figure 6a a band saw with most of the recited limitations including a valley (all space between cutting tips) having a cut-out (11). In regards to claim 7, it is noted that the cutout can be bisected at any angle, and therefore any cutout would read on this limitation.

Yoshida's cutout (11) is for the purpose of chip removal, but the cutout does not extend all the way thru the saw blade. Examiner takes Official Notice that it is well known for chip-removal cutouts to extend all the way thru the saw blade. An example of such is the patent to Potomak (10, lines 35-39, column 2). It would have been obvious to one of ordinary skill in the art to have modified Yoshida's cutout by making it go all the way thru the blade, as is well known and taught by Potomak, since this is an art-recognized equivalent known for the same purpose. See MPEP 2144.06.

In regards to claims 8 and 9, the size of the valley between the teeth and the corresponding size of the cutout are known results-effective variables. When cutting soft materials, such as pine or soft plastics, a designer would choose a large tooth pitch (large valley) such that there would be a large tooth penetration per cycle. When cutting a hard material, such as steel or hard plastics, a designer would choose a much smaller tooth pitch, since one would like to avoid a large tooth penetration that would cause binding or breakage. Given this knowledge that valley size and corresponding cutout

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size can vary widely, it would have been obvious to have made the valley and cutout be small (e.g. the cutout be the same width as the blade thickness) in order to cut hard materials.

6. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts '533, who shows in figure 1 a band saw with most of the recited limitations including valleys (all spaces between cutting tips) with ski-jump slopes and parallel teeth edges.

Roberts lacks a cutout in the bottom of the valley. Examiner takes Official Notice that it is well known to have a cutout in the blade valley, for the purpose of diverting cut material. An example of this is the patent to Balke (2, lines 41-50, column 2). It would have been obvious to one of ordinary skill in the art to added a cutout in Robert's valley, as is well known and taught by Balke, in order to divert cut material and thus avoid jamming. Balke's cutout is approximately the same thickness as the blade thickness, and thus it would have been obvious to one of ordinary skill in the art to have made the cutout have the same width as the blade thickness on Roberts, for lack of any other suggestion.

7. Applicant's arguments with respect to the claims have been considered but are moot in view of the new grounds of rejection.

8. Made of record but not relied on is a patent to Erhardt showing a pertinent bandsaw blade.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken Peterson at 571-272-4512, on Monday-Thursday, 7AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan Shoap, can be reached at 571-272-4514. In lieu of mailing, it is encouraged that papers be faxed to 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. For more information about the PAIR system, see <http://pair-direct.uspto.gov> or call the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

kp

March 10, 2005



KENNETH E. PETERSON  
PRIMARY EXAMINER